

# **BOX ELDER COUNTY HAZARD MITIGATION STRATEGIES**

## **Hazard Mitigation Goals**

The following goals were identified to direct the county's hazard mitigation strategies. These general goals were identified and developed based on the local official surveys (See appendix A), input from the Bear River District PDM Technical Planning Team and Steering Committee.

### **Goal # 1: Minimize potential impacts for future development**

- **Develop, refine and improve the hazard data available to local level decision makers.**
- **As appropriate, develop and implement regulatory mechanisms to insure new development activities will not increase the risk to life or property.**
- **Build technical capacity for local elected and appointed officials.**
- **Empower citizens to make informed choices.**

### **Goal # 2: Minimize potential impacts for existing development**

- **Improve emergency disaster response capabilities.**
- **Improve the disaster resistance of existing infrastructure and critical facilities.**
- **Educate and build capacity of citizens to undertake mitigation activities.**

To accomplish these goals specific mitigation strategies were developed by participating jurisdictions. These goals were given assigned a priority of high, medium, or low by Bear River District PDM Technical Planning Team and Steering Committee. Priorities were given taking into account the following factors:

- Number of people protected by the project
- Technical feasibility
- Political support
- Environmental impacts
- Available funding source

A guiding factor in prioritizing mitigation was the thought that mitigation should provide the greatest amount of good to the greatest amount of people when cost was taken into account. Prioritizing mitigation was difficult in this plan as each as Bear River is vulnerable to many different hazards. Each with its own characteristics. Thus, recurrence intervals, past events, damage estimates compiled during the assessing vulnerability section of this plan were also taken into account.

BOX ELDER COUNTY NATURAL HAZARD MITIGATION PROJECTS Bear River District Pre-Disaster Mitigation Plan 2004									
Hazard	Goal	Jurisdiction(s)	Objective	Project Description	Priority	Timeframe	Potential Funding	Estimated Cost	Resources
Multi-Hazard	Goal 2	All Jurisdiction	Prepare for Severe Weather Events	Become a National Weather Service “Storm Ready” Community ( <a href="http://www.stormready.noaa.gov/">http://www.stormready.noaa.gov/</a> )	Medium	2006		Minimal	NOAA
Multi-hazard	Goal 1 & 2	Brigham, Mantua	Protect critical infrastructure	Bury the 36” Penstock water line that carries culinary water, produces power and provide irrigation water to Brigham City.	High	2007	Local, FEMA		
Multi-hazard	Goal 1 & 2	Brigham City	Improve emergency response capability	Develop mutual aid agreements with surrounding communities. Provide training and testing of programs.	High	2005	Local	Minimal	
Multi-hazard	Goal 1 & 2	Perry City	Improve emergency preparedness	CERTS training and equipment	High	2006	Local, FEMA	\$3,000-\$5,000	UDESHS, FEMA
Multi-hazard	Goal 1 & 2	Perry City	Protect critical infrastructure	Install electrical generators at culinary water wells.	High	2005	Local, FEMA	\$20,000	UDESHS, FEMA
Multi-hazard	Goal 1 & 2	Brigham City	Improve the reliability of electric power delivery	Perform ongoing tree trimming for proper clearance for power lines. Maintain outage plan.	High	2004	Local	\$50,000 per year	
Flooding	Goal 1 & 2	Snowville, Plymouth and Tremonton	Mitigate impacts related to flooding.	Initiate participation in the National Flood Insurance Program (NFIP) to enable home owners to purchase flood insurance.	High	2005		Minimal	UDESHS, ACOE
Flooding	Goal 1 & 2	Jurisdictions with identified flood hazards	Make better informed decisions.	Develop a floodplain map for communities that do not have one. Refine, update and improve existing flood plain mapping.	Medium	2009	FEMA, UDESHS, Local	\$2,500 to \$65,000 each	Consultants, FEMA, UDESHS, Public Works
Flooding	Goal 1 & 2	Brigham City, Perry, Willard	Minimize flood risk from canal failure or overtopping	For those not already been studied, analyze and model the canals to determine deficiencies related to present and future demands (taking into account projected storm water increases based on projected development).	Medium	2007	Local, FEMA	\$40,000	Consultants
Flooding	Goal 2	Perry, Willard	Minimize flooding along the base of the Willard Mountains (Perry south to Weber County Boundary).	Pearson Canyon drainage-extend storm water drain west of SR-89 to the east of the railroad tracks and eventually under the tracks to wetlands.	Medium	2005	Willard City, Willard Flood Improvement District, FEMA	\$106,100	
Flooding	Goal 2	Willard	Minimize flooding along the base of the Willard Mountains (Perry south to Weber County Boundary).	Pearson Canyon drainage-dike the north channel east of the Ogden-Brigham Canal to divert water to the south branch. Deepen existing detention basin and low level outlet constructed.	Medium	2007	Willard City, Willard Flood Improvement District, FEMA	\$126,000	
Flooding	Goal 2	Tremonton	Protect critical community facilities.	Berm around the west and north sides of the regional waste water treatment plan (similar to south and east sides). 840 feet, 3 feet high and 15 feet wide along Malad River.	Medium	2006	Tremonton, FEMA	\$12,000	
Flooding	Goal 2	Honeyville	Educate citizens	Provide education and issue warnings when building permits are issued along the Bear River.	High	2004	Honeyville Town	Minimal	
Flooding	Goal 2	Honeyville	Educate citizens	Educate citizens and property owners along foot of Wellsville Mountains of areas of past flooding.	High	2004	Honeyville Town	Minimal	
Flooding	Goal 1 & 2	Brigham City	Moderate impact of flooding	Update master storm drainage plan. Utilize parks to become retention ponds for storm water. Obtain updated aerial photography and derive contours for Brigham City.	High	2005	Brigham City	\$15,000 +	EPA, DEQ
Wildfire	Goal 2	Honeyville, Deweyville, Brigham City, Perry, Willard	Become “Firewise” communities.	Enact ordinance and planning procedures to insure development in fire prone areas are done wisely. Provisions for multiple access routes, firebreaks, wide roads and adequate water sources should be included. Standards for homes should be enforced that require defensible space and fire wise building materials and designs (see <a href="http://www.firewise.org">www.firewise.org</a> ).	High	2007		Minimal	BRAG, Utah Division of State Lands, Fire and Forestry, Utah League of Cities and Towns.
Wildfire	Goal 2	Honeyville	Build citizen capacity	Educate and train property owners along the foot of the Wellsville Mountains about living with wildfire threats.	High	2006	Honeyville Town	Minimal	BRAG, Utah Division of State Lands, Fire and Forestry, Utah League of

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									Cities and Towns.
Wildfire	Goal 1 & 2	Brigham City	Reduce the risk of property to wildfire	Continue to provide public education of wildfire and enforce existing fire related building codes	High	2004	Brigham City	Minimal	
Wildfire	Goal 1 & 2	Brigham City	Reduce the threat of wildfire	Continue to maintain the fire break on Brigham's east bench area. Reduce fuel loads in this area	High	2004	Brigham City, Utah Forestry	\$7,500	
Earthquake and Landslide	Goal 1 & 2	All Jurisdictions	Make better informed decisions.	Improve the geologic hazard information and mapping for populated portions of the county.	Medium	2008	Utah Geologic Survey, Local	\$65,000	Utah Geologic Survey, BRAG
Earthquake and Landslide	Goal 1	All Jurisdictions	Avoid placing new development at risk from geologic hazards.	Develop land use ordinances that require site specific geo-hazard studies be performed prior to development permitting in areas determined to be high risk related to earthquakes (especially for critical or high-occupancy buildings).	High	2006		Minimal	Utah Geologic Survey, BRAG, Utah League of Cities and Towns.
Earthquake	Goal 1 & 2	Brigham City	Prepare Brigham City residences for an earthquake event	Develop an earthquake education program for the general public. Training of City workers. Improve and enforce earthquake landuse ordinances.	High	2004	Brigham City, FEMA	\$10,000+	
Earthquake	Goal 1 & 2	Brigham City	Prepare Brigham City residences for an earthquake event	Develop a CERT program for Brigham City. Equip areas of the city with emergency response equipment.	High	2004	Brigham City, FEMA	\$105,000 Initial \$5,000 per year	
Earthquake	Goal 1 & 2	Brigham City	Prepare Brigham City residences for an earthquake event	Provide 72 hour emergency kits for all city employees	High	2004	Brigham City, FEMA	\$129 per employee	
Dam Failure	Goal 1 & 2	Brigham City	Protect residents from failure of the Mantua Dam	Develop a public alert notification plan for residents down stream.	High	2004	Brigham City	\$250	Div. of Dam Safety
Dam Failure	Goal 1 & 2	Brigham City	Protect residents from failure of the Mantua Dam	Research, evaluate and install a dam failure monitor for the Mantua Dam.	High	2004	Brigham City	Unknown	Div. of Dam Safety
Dam Failure	Goal 1 & 2	Brigham City	Protect residents from failure of the Mantua Dam	Develop and implement a steam maintenance plan for sections downstream of the Mantua Dam.	High	2005	Brigham City, FEMA	Unknown	
Dam Failure	Goal 1 & 2	Brigham City	Protect residents from failure of the Mantua Dam	Develop and implement a public education and training program for residences downstream of the Mantua Dam. Develop a dam failure map.	High	2005	Brigham City, FEMA	\$1,000 +	
Drought	Goal 1 & 2	Brigham City	Conserve water resources in Brigham City	Develop and implement a water conservation education program for Brigham City residences. Maintain the tiered water rate structure.	High	2004	Brigham City	\$100	
Drought	Goal 1 & 2	Brigham City	Conserve water resources in Brigham City	Develop the capacity to pumping of water back underground during non-peak periods for storage.	High	2005	Brigham City, FEMA	\$50,000	Div. of Water Resources
Problem Soils	Goal 1 & 2	Brigham City	Avoid development impacts on problem soils	Develop a problem soils map and enforce restrictions for construction in areas identified as problematic.	High	2004	Brigham City FEMA	\$8,000	